

Serial No. 10/734,085
60246-259
10812

REMARKS

Applicant thanks the examiner for the detailed remarks and analysis. Applicant has amended the specification to correct several minor informalities. Claims 1-21 remain pending in the application, claims 7, 12 and 21 have been amended.

Claims 1-6 and 11 were rejected as being anticipated by McFarland (U.S. 6,606,860). Claim 1 requires a first member movable responsive to flow of a refrigerant and a friction device driven by said member for generating heat. The office action indicated that a heat exchanger (120) friction device including an expander (134) a pump (124) and an electronic controller for controlling an input fan with a shaft and a motor. However, the item indicated as a heat exchanger/friction device (120) is merely a high pressure vessel formed of steel for containing a working fluid (129) (Col 6, lines 55-58). Further, the item indicated by (134) is a start valve, not an expander. In any case, McFarland fails to disclose or suggest a friction member driven by a moveable member responsive to the flow of a refrigerant for generating heat. McFarland discloses a device for converting thermal energy scavenged from other heat producing system to mechanical energy. An expander is utilized in McFarland to recover the energy by rotating a shaft, but is not used to drive a friction member as is required to meet the limitations of claim 1. Accordingly, McFarland does not disclose the generation of heat by a friction member that is driven by a first member movable responsive to a refrigerant and therefore cannot anticipate the limitations of claim 1.

Claims 12-16 have been rejected as being obvious over McFarland as modified in view of Fabris (U.S. 5,216,899). Again, McFarland does not disclose a friction device driven by an expander for generating heat. Claim 12 requires a friction device driven by refrigerant within an expander for generating heat. McFarland does not disclose a friction member driven by an expander. The combination of McFarland with Fabris does not correct this deficiency. Fabris discloses a thermally activated heat pump that utilizes a portion of energy obtained during expansion to drive a turbine shaft. However, neither McFarland nor Fabris disclose a friction device driven by an expander for generating heat. Accordingly, because the proposed modification does not disclose or suggest the limitations required by claim 12, this rejection is not proper and should be withdrawn.

Further, the combination of McFarland and Fabris is not proper as the Fabris device would provide no benefit to the McFarland device. McFarland and Fabris disclose expanders for

Serial No. 10/734,085
60246-259
10812

controlling a coolant flow of a refrigerant (McFarland; Col 2, lines 33-35), (Fabris;Col 3, 10-15). Neither disclose a friction member driven by an expander. The McFarland device discloses all the features of Fabris and therefore there is no benefit to combining the McFarland device with the Fabris device. Without some benefit to a proposed combination there can be no suggestion or motivation. Without suggestion and motivation there is no prima facia case for obviousness. Accordingly, the rejection to claim 12 as being obvious is improper and should be withdrawn.

Claims 7, 12, and 21 were indicated as being allowable if rewritten independent form. Applicant has so amended claims 7, 12 and 21 to include the limitations of the base claim.

Accordingly, it is respectfully submitted that claims 1-21 are in condition for allowance and a notice to the effect is requested. Fees as are required for the additional independent claims are submitted herewith and no additional fees are seen to be required. However, if any additional fees are due, however, the Commissioner is authorized to charge Deposit Account No. 50-1482, in the name of Carlson, Gaskey & Olds, P.C., for any additional fees or credit the account for any overpayment.

Respectfully Submitted,

CARLSON, GASKEY & OLDS, P.C.


John M. Siragusa
Registration No. 46,174
400 West Maple Road, Suite 350
Birmingham, Michigan 48009
Telephone: (248) 988-8360
Facsimile: (248) 988-8363

Dated: August 30, 2005